Reply on RC1
Joel Lisonbee and Joachim Ribbe

In response to point (1):

We would like to thank the reviewer for suggesting an alternative way to summarise and present our results. In generating our Figure 1, we have considered previously several options and now have also followed up on the reviewers suggestion.

Using curves instead of bars as suggested gives the impression that the onset dates are related from one season to the next. However, this requires the reader to know and understand that each onset date is a single point each year that is unrelated to the previous year's onset. We would argue that our 'bar' type presentation avoids this possible misinterpretation by the reader.

In regards to grouping the indices, this grouping was considered in Lisonbee et al. (2020). Thus in doing so again here would reproduce what has been done previously leading to a similar presentation, albeit showing different data. We would argue that our presentation in addition to the description provided in our paper is appropriate in conveying the key information from our analysis.

In summary, we have retained our original presentation of the results (i.e. figure 1) since there appears to be no advantage in following up on the reviewer's suggestion. However, we would like to thank the reviewer for prompting us to check our presentation again.

In response to point (2):

Yes, thank you for these comments. We modified Figure 2 and have now included a standard deviation bar around the mean.

In response to point (3):

Many thanks for this suggestion. We have followed up on this and added a paragraph:

"To roughly test these explanations, we split the data into two periods of 36 years each. A bootstrapping technique was applied to both periods and changes in the data between the two periods were analysed. The mean onset date and STD changed by less than a day between each period. The SOI differs by only 0.4 between the two periods and it is
concluded that these changes are small compared to the changes seen in the correlation between the two datasets."